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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,362	03/08/2007	Peter Cawley	96666.00014	4018

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EXAMINER	
TOWA, RENE T	

ART UNIT	PAPER NUMBER
3736	

NOTIFICATION DATE	DELIVERY MODE
08/06/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/561,362	CAWLEY ET AL.	
	Examiner	Art Unit	
	RENE TOWA	3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16,18-20 and 24-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16,18-20 and 24-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 December 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/21/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference numeral 153 described at page 5, line 6 of the original disclosure is missing from the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 16, 18-20 & 24-34 are objected to because of the following informalities:

In regards to claim 16, at line 7, the limitations "a electromagnetic" should apparently read --an electromagnetic--.

In regards to claims 18-20, 24-28 & 30-31, at line 1, the limitations "The arrangement" lack sufficient antecedent basis and should apparently read --The system-- as per the amendment to claim 16.

In regards to claim 20, the claim appears to depend from claim 19 rather than claim 16 as claimed; for example,

at line 2, the limitations "said amplifier" lack sufficient antecedent basis and should apparently read --an amplifier--,

at line 3, the limitation "analysed" should apparently read --analyzed--; similarly, the limitations "analysed" should apparently read --analyzed--;

at line 4, the limitations "said processor" lack sufficient antecedent basis and should apparently read --a processor" and,

at line 5, the limitations "said data storing arrangement" lack sufficient antecedent basis and should apparently read --a data storing arrangement--.

In regards to claim 24, at line 2, the limitations "said detectable part (i.e. body of member 1)" lack sufficient antecedent basis and should apparently read --said magnetic part-- as per the amendment to claim 16.

In regards to claim 33, at line 2, the limitations "frequency of the of said implant" should apparently read --frequency of said implant--.

Appropriate correction is required.

Double Patenting

4. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to

identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

5. Claims 29 & 32-34 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention verbatim as that of claims 22-25, respectively, of copending Application No. 12/393,931. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 16, 18-20 & 25-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Meredith et al. (US 5,392,779) in view of Maniglia et al. (US 6,161,046).

In regards to **claim 16**, Meredith et al. disclose a system for testing an implant 3 attached to a bone, the system comprising:

a member 1 adapted to be releasably attached to said implant 3, and,

detecting means (5, 6) for detecting at least one resonance frequency of the member 1 when it is attached to the implant 3,

wherein said member 1 comprises a detectable part (i.e. body of member 1) and said detecting means comprises a detector 6 for detection of said detectable part (i.e. body of member 1) (see fig. 1; col. 1, lines 38-45; col. 2, lines 19-24 & 51-58).

In regards to **claim 19**, Meredith et al. disclose a system further comprising an amplifier 8, a processor 9, and a data storing arrangement 9a (see col. 3, lines 1-8).

In regards to **claim 20**, Meredith et al. disclose a system wherein signals detected by the detector 6 are amplified by said amplifier 8 and applied as an input to be analyzed; the analyzed output, which represents a ratio of a response voltage to the excitation, is fed to said processor 9, which varies the frequency output of the oscillator of the analyzer 7, and stores the results in said data storing arrangement 9a (see col. 2, lines 59-68; col. 3, lines 1-8).

In regards to **claim 26**, Meredith et al. disclose a system wherein the member 1 comprises a cantilever beam (see col. 1, lines 53-63; col. 2, lines 51-55).

In regards to **claim 27**, Meredith et al. disclose a system wherein the beam is arranged or adapted to resonate at a frequency within the range of about 1 to 20 kHz (see col. 3, lines 63-68).

In regards to **claim 28**, Meredith et al. disclose a system wherein said member 1 is inherently disposable (i.e. the cantilever beam 1 can be thrown away whether intentionally or not, and is thus inherently disposable) (see fig. 1).

In regards to **claim 30**, Meredith et al. disclose a system wherein the beam is arranged or adapted to resonate at a frequency within the range of about 1 to 10 kHz (see col. 3, lines 63-68).

In regards to **claim 31**, Meredith et al. disclose a system wherein the beam is arranged or adapted to resonate at a frequency within the range of about 8 kHz (see fig. 2).

In regards to **claim 32**, Meredith et al. disclose a testing equipment for testing an implant 3 configured to be attached to a bone, the testing equipment comprising:

a probe portion (5, 6) adapted to be positioned at a vicinity of said implant 3;

a signal processing unit 9 being configured to receive a signal from said probe portion (5, 6), and

an output arrangement 10 configured to output a result from said signal processing unit 9 (see fig. 1; col. 1, lines 38-45; col. 2, lines 19-24 & 51-58).

In regards to **claim 33**, Meredith et al. disclose a testing arrangement wherein said result corresponds to a resonance frequency of said implant 3, which represents a ratio of a response voltage when a detectable part (i.e. body of member 1) coupled to said implant 3 is excited (see col. 2, lines 59-68; col. 3, lines 1-8).

In regards to **claim 34**, Meredith et al. disclose a testing arrangement wherein said signal processing unit 9 is further configured to vary a frequency output of an oscillator, and stores the results in said data storing arrangement 9a (see col. 2, lines 59-68; col. 3, lines 1-8).

Meredith et al. disclose a system and equipment, as described above, that fails to explicitly teach a member comprising a magnetic part or a coil; or a detector comprising an electromagnetic part or a magnetic part.

However, **Maniglia et al.** teach that it is known to provide a disposable implant member 36' comprising a magnetic detectable part having a (titanium) coil releasably connected to a bone 24; and a probe portion comprising an electromagnetic detector 40' having a (driving) coil for contactless detection of said magnetic part (i.e. coil) (see fig. 4; col. 5, lines 45-49; col. 6, lines 8-10, 13-16 & 51-57).

In regards to **claims 16, 18-20 & 25-34**, Meredith et al. teach a system and equipment for measuring the vibrations of a cantilever beam member 1 connected to a bone via an implant to assess the degree of attachment of the implant to the bone (see fig. 1); since Maniglia et al. teach that it is known to determine the vibrations of a member 36' connected to a bone 24 in a contactless manner via a magnetic detectable coil, and a magnetic detector coil (see fig. 4; col. 6, lines 51-57), it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to provide the system and equipment of Meredith et al. with a magnetic detectable part comprising a coil and an electromagnetic detector comprising a coil as taught by Maniglia et al. in order to remotely monitor the vibration of the member so to assess the degree of attachment of the implant to the bone.

8. **Claim 24** is rejected under 35 U.S.C. 103(a) as being unpatentable over Meredith et al. ('779) in view of Maniglia et al. ('046), and further in view of Mendes et al. (US 6,583,630).

Meredith et al. disclose a system, as described above, that fails to explicitly teach a detectable part consisting of a ferromagnetic material.

However, **Mendes et al.** teach that it is known to provide a member 150 attached to an implant (152, 154); wherein said member 150 includes a magnetic part and said detectable part consists of a ferromagnetic material (see fig. 12; col. 15, lines 8-26).

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to provide the system of Meredith et al. as modified by Maniglia et al. with a detectable part consisting of a ferromagnetic material as taught by Mendes et al. in order to remotely measure vibrations of the ferromagnetic material so as to assess the degree of attachment of the implant to the bone.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2005/0026113 to Chen et al. disclose a micro-implantable apparatus for the stability assessment of a two-stage dental implant.

US 6,034,296 to Elvin et al. Disclose an implantable bone strain telemetry sensing system.

US 2002/0177790 to Meredith et al. disclose a device for establishing stability in an implant.

US 5,518,008 to Cucchiaro et al. disclose a structural analyzer, in particular for medical implants.

US 5, 680,874 to Takuno discloses an apparatus for measuring tooth mobility.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RENE TOWA whose telephone number is (571)272-8758. The examiner can normally be reached on Mon-Thurs, 8:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rene Towa/
Examiner, Art Unit 3736

/Max Hindenburg/
Supervisory Patent Examiner, Art Unit 3736